Evaluating TB Enablers and Incentives Workshop Report:

Paris, November 3–4, 2003

Management Sciences for Health
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This report was made possible through support provided by the U.S. Agency for International Development, under the terms of Cooperative Agreement Number HRN-A-00-00-00016-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

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July 2005

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Printed July 2005

Strategic Objective 5

Sponsored by the Stop TB Partnership and the Rational Pharmaceutical Management Plus Project/Management Sciences for Health

Financed by the Stop TB Partnership, World Bank, and USAID

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About Stop TB

The Global Partnership to Stop TB is a movement toward a TB-free world. It comprises over 325 international organizations, countries, financial donors from the public and private sectors, governmental and/or nongovernmental organizations, other entities and individuals supporting the fight to stop TB. The Stop TB Partnership was launched in November 1998 and adopted its formal governance structure in 2001, with a Global Forum, a Coordinating Board, a Secretariat at WHO (including the Global Drug Facility), and six Working Groups on DOTS Expansion, TB-HIV, DOTS-Plus, Diagnostics, Drugs, and Vaccines. Stop TB's priorities are to expand, adapt, and improve strategies to control and eliminate TB as a public health problem.

About RPM Plus

The Rational Pharmaceutical Management Plus (RPM Plus) Program works in more than 20 developing countries to provide technical assistance to strengthen pharmaceutical and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

Recommended Citation

Mookherji, S., D. Weil, A. Beith, and C. Owunne. 2005. *Evaluating TB Enablers and Incentives Workshop Report: Paris, November 3–4, 2003.* Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health and Stop TB Partnership.

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CONTENTS

ACRONYMS

CB DOTS	community-based DOTS
CENAT	Centre National Anti-Tuberculeux
CIDA	Canadian International Development Agency
DHS	Demographic and Health Survey
DOTS	Directly Observed Treatment, Short-course
FIDELIS	Fund for Innovative DOTS Expansion through Local Initiatives to Stop TB
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
I&E	incentive and enabler
ICC	International Child Care
IUATLD	International Union Against Tuberculosis and Lung Disease
M&E	monitoring and evaluation
MDR	multidrug-resistant
MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	nongovernmental organization
NTP	national tuberculosis program
OR	operations research
OR&E	operations research and evaluation
PIH	Partners in Health
PPM	public-private mix
RPM Plus	Rational Pharmaceutical Management Plus (Program)
TB	tuberculosis
USAID	U.S. Agency for International Development
USD	U.S. dollar
WFP	World Food Program

EXECUTIVE SUMMARY

Introduction

The Stop TB Partnership and the Rational Pharmaceutical Management (RPM) Plus Program of Management Sciences for Health (MSH) cosponsored a workshop in Paris, France, on November 3 and 4, 2003, titled "Evaluating TB Enablers and Incentives."[1] This interactive workshop aimed to explore the design, monitoring, and evaluation of incentive and enabler (I&E) schemes that seek to improve tuberculosis (TB) control programs by increasing the motivation, engagement, and performance of patients, providers, and other stakeholders in Directly Observed Treatment, Short-course (DOTS) programs. Over 50 participants were involved, representing national TB programs (NTPs), nongovernmental organizations (NGOs), academic and technical partners, and donor agencies. The workshop included organizations currently engaged in interventions involving enablers or incentives, those evaluating schemes, and those aiming to adopt new approaches.

The workshop was organized as four themed sessions, with working group sessions building on discussions from introductory panels. The first day focused on recent experiences with mapping stakeholder motivations, findings from research to date and plans for evaluating I&Es, and the introduction of a framework for operations research and evaluation (OR&E) of I&E. Participants broke into four working groups to discuss further methodological challenges and concerns in evaluating the impact of I&E schemes. The second half-day focused on identifying common themes and challenges to implementation and evaluation, across a variety of I&Es currently in use in TB control programs. Participants worked in four groups according to incentive type (food support to patients, nonfood patient I&E, I&E for formal providers, and I&E for informal providers) to identify outcome and process indicators of interest. The workshop concluded with a plenary session identifying the key conclusions from the workshop and next steps to be taken.

The full report provides summary conclusions from the presentations and discussions, organized by session. Annex 1 lists all slide presentations given by presenters, other background papers provided at the meeting, the workshop agenda, workshop profile, list of participants, notes from day two working groups, and a summary of workshop evaluations. A CD of workshop materials has been provided to participants. All materials are available by request or online at http://www.msh.org/projects/rpmplus/tb/3.5.5.htm.

[1] For the purposes of this work, we adopted the following definitions:
Enabler: makes something possible, practical, or easy; allows action based on existing motivations or to achieve performance standards or goals within existing systems frameworks.
Incentive: incites someone to determination or action; introduces additional motivations to achieve existing performance objectives or to achieve higher performance standards.

Background

Global experience in TB control is revealing common challenges in converting non-DOTS TB care to DOTS and in serving patients not yet reached. There is recognition that a much wider range of public institutions, community members, and private sector partners need to be assimilated in the fight against TB. Motivating a wide range of stakeholders to participate and perform well is a key challenge for DOTS programs around the world. I&Es can motivate stakeholders to perform better, especially if supported by underlying strengthening of core DOTS practices.

How and when to use I&Es has emerged over the past two years as a topic of relevance to DOTS scale-up and also to new strategies—such as public-private mix (PPM) and community-based Directly Observed Treatment, Short-course (CB DOTS)—which adapt DOTS to reach more patients. Many DOTS expansion strategies do not sufficiently address the motivational or functional constraints of participants to engage in community-based care, public-private collaboration for TB control, or in DOTS-Plus schemes. Furthermore, where I&Es are being adopted, schemes are too often not pilot-tested or adequately evaluated after implementation.

The Stop TB Partnership, the World Bank, and RPM Plus/MSH began work jointly in 2001 to foster an expanded evidence base on I&E in TB control. Financing has come from the U.S. Agency for International Development (USAID) and the World Bank. The goal of the joint work program has been to look at the design, feasibility, effectiveness, and impact of I&Es.

Key Workshop Conclusions

1. The role of I&Es in TB control is being mainstreamed.

A stand-alone working group on TB I&Es is not necessary, but clearly, stakeholder motivations need to be addressed explicitly in other established DOTS Expansion Working Groups (e.g., PPM, community-based care collaborative efforts, DOTS-Plus schemes). These working groups should play a key role in piloting and evaluating I&Es.

In particular, a major opportunity and a substantial challenge exist to link TB and HIV prevention and control efforts. These efforts need to be complemented by increased financing and political commitment to improve both the health systems and the enabling environment and should include specific approaches, including I&Es, to involve patients and their support systems.

2. Recent experiences with I&Es reveal several key challenges.

Although I&Es vary in type and scope, common themes and challenges were identified during the workshop: design and implementation of I&E schemes, evaluation design, and analysis and attribution of evaluation findings.

Common design and implementation challenges included clear identification of scheme objectives and beneficiaries, accommodating the management and administration demands of the I&E scheme, and controlling for unintended perverse effects.

Participants agreed that the key evaluation challenge is attributing observed effects specifically to an I&E scheme within an epidemiological, DOTS-implementation, and health systems environment that is highly dynamic. Although including a comparison or control group in evaluation design is the key to addressing this challenge, participants also expressed ethical concerns about using a control group in certain situations.

An OR&E guide is needed to assist partners with the specific challenges of evaluating I&E schemes. Participants endorsed the concept and plans of RPM Plus to develop a framework and model protocols for such a guide. These guidelines should help improve efforts to measure effectiveness as well as to document management challenges and responses to control perverse effects.

Scale-up of I&E schemes will depend on stakeholder commitment, including financing for the medium term, as well as on better data on cost-effectiveness of I&E schemes for decision making. To date, the scope, depth, and quality of evaluation of the effectiveness and efficiency of I&E schemes is wholly inadequate. Additional OR&E studies, and the sharing and publication of results, are needed before major scale-up of I&E approaches can be promoted.

3. Stakeholder motivations mapping assists planning for I&E.

Experiences in China, Tanzania, and Uganda show that DOTS motivations mapping workshops are useful for defining the added value of potential enablers, incentives, or other DOTS adaptations in improving TB program performance. The methodology used during these workshops can help build consensus on common problems and identify potential solutions, increasing the motivation and performance of key stakeholders in DOTS, whether providers, patients, or other partners. Identified solutions have involved either improved functioning of core DOTS practice or innovations such as specific enablers or incentives that require testing. The mapping workshop format**,** using guided, interactive informal discussion, can engage the various stakeholders in uncovering unexpected solutions and building commitment to problem solving.

4. Common indicators can be used for evaluating I&Es.

Although many I&E schemes are in use, they can be grouped according to four broad themes: food support to patients, nonfood support to patients, incentives for formal providers, and incentives for informal providers. Working groups focusing on each of these themes identified common indicators for monitoring and evaluation (M&E): treatment adherence, case detection rates, defaulter rates, case finding, treatment delay, and number of referrals. Most of these indicators are already part of DOTS monitoring requirements. In addition, the working groups identified important background indicators that should be monitored either quantitatively or qualitatively, such as management and administration resources, beneficiary satisfaction and attitudes to DOTS, sustainability of the I&E scheme, and impact of the I&E scheme on the poor.

5. Further documentation of I&E experiences and impact is needed.

Partners in TB control could benefit from further documentation of ongoing I&E schemes, even those that continue in the absence of formal piloting or evaluation. Experiences from schemes that target improved performance of NTP managers and supervisors, local administrative bodies such as municipalities, and provider institutions not traditionally participating in DOTS could provide valuable lessons learned for other programs, as could schemes that target poor patients and their support networks.

Next Steps

- Participants called on the Stop TB Partnership and RPM Plus to continue facilitating documentation of I&E experiences, cross-fertilization, and financing of I&E in TB control. RPM Plus has launched a new Web site[2] with updated materials available. The workshop organizers committed to stimulating electronically based discussion on newly published or "gray" literature in this area.

- RPM Plus/MSH will continue the development of the OR&E guide and make it widely available to partners in TB control. Participants identified specific issues to be addressed by this guiding framework: choosing a feasible study design, identifying appropriate comparison groups, using alternative means to account for confounding factors, using both quantitative and qualitative approaches, and collecting data and performing cost and cost-effectiveness analyses. Although the OR&E guide will not eliminate the challenge of measuring the incremental impact of an I&E scheme, it can improve efforts to measure effectiveness and costs, as well as encourage programs to document implementation challenges and responses to perverse effects.

- A symposium on I&E will be held within the International Union Against Tuberculosis and Lung Disease (IUATLD) annual congress in October 2004, titled "Incentives for DOTS Performance: Enabling or Corrupting?" This event will provide a prime opportunity for partners to share recent experiences and results from evaluations and for drawing in more partners. Participants also hope that further opportunities will be available at future regional and global Stop TB meetings to promote I&E successes.

- The Fund for Innovative DOTS Expansion through Local Initiatives to Stop TB (FIDELIS) secretariat and its donor, the Canadian International Development Agency (CIDA), encouraged workshop participants to submit proposals for piloting and scale-up of new I&E schemes, as a potentially effective DOTS innovation that is well-suited for financing by the program.[3] Many programs have already received financing from donors to scale up DOTS, including support for innovative approaches; applicants should ensure that proposals include support for proper evaluation of such approaches.

[2] Visit www.msh.org/projects/rpmplus/tb and click on "Incentives and Enablers."
[3] Visit www.iuatld.org for more information on FIDELIS.

PREFACE

The Stop TB Partnership and RPM Plus co-sponsored a workshop in Paris, November 3–4, 2003, the theme of which was "Evaluating TB Enablers and Incentives." This interactive workshop aimed to explore the design, monitoring, and evaluation of I&E schemes that seek to improve TB control programs by increasing the motivation, engagement, and performance of patients, providers, and others participating in DOTS programs.

The workshop followed immediately upon the 2003 World Congress on Lung Health sponsored by IUATLD. The organizers gratefully acknowledge the financial support provided by the World Bank via Stop TB, as well as USAID via RPM Plus, which made the workshop possible and enabled the participation of many presenters and developing country participants. The organizers appreciate the substantial logistical and administrative support provided by staff at MSH, the Stop TB secretariat, and the IUATLD.

This report provides summary conclusions from the presentations and discussions, organized by session. The workshop agenda, a workshop profile, and list of participants are included in Annexes 1, 2, and 3. The complete slide presentations from the workshop and other background papers provided to participants are available at http://www.msh.org/projects/rpmplus/3.5.5d.htm. In addition, a CD of workshop materials has been provided to all participants. Materials are also available by request from RPM Plus for those unable to access them online.

INTRODUCTION

Precedents

During the last two years, Stop TB partners, in moving forward to implement the Global Plan to Stop TB, have garnered growing international political and financial commitment to DOTS, from traditional and new sources (e.g., the Global Fund to Fight AIDS, Tuberculosis and Malaria [GFATM]), and have succeeded in expanding greatly the number of countries implementing DOTS scale-up. Global experience is revealing a common challenge not only to converting non-DOTS TB care to DOTS, but also to reaching out to serve patients not likely to be notified under either approach. To do this, a much wider range of public institutions, community members, and private sector partners needs to be brought into the commitment to fighting TB. Motivating a wide range of stakeholders to participate and perform well is a key challenge for DOTS programs around the world. I&Es are one possible approach to motivate diverse stakeholders to commit to, or further support, TB control.

In 2001, the Stop TB Partnership, World Bank, and the Rattional Pharmaceutical Management Project (RPM), the predecessor of RPM Plus, began to gather evidence on using I&Es in TB control. This effort emerged from the recognition that many countries were applying tools to enable patients or providers to pursue DOTS or to encourage them to perform better in providing DOTS services. I&Es are innovations complementary to ongoing DOTS expansion strategies, such as improving core financing, inputs, capacity or delivery modes, community-based DOTS (CB DOTS), and PPM. The goal of the joint work program has been to look at the design, feasibility, effectiveness, and impact of I&Es.[4]

The stages in this work program from 2001 to 2003 have been to—

Develop an analytic framework and review existing published literature

Survey current implementers of I&E schemes and synthesize information offered on design, management, financing, monitoring, and evaluation

Facilitate sharing of experiences and relevant research through workshops

Develop a tool for mapping enabling and motivating environments for participants in DOTS in high-burden countries

Assist selected countries in testing the mapping process to determine areas for improvement in core DOTS practice and other needed enhancements or innovation (including I&Es)

Develop and share existing research and evaluation methodology

[4] For more information, see http://www.msh.org/projects/rpmplus/tb/3.5.5.htm.

Assist implementers in mobilizing resources and technical assistance for piloting and evaluation, either specifically on I&E or as a component of broader testing of new approaches

The workshop "Evaluating TB Enablers and Incentives" brought together participants to initiate work on developing and sharing existing research and evaluation experiences and methodologies to assess the impact of I&E on TB program performance and to discuss opportunities for further OR&E activities and potential sources of financial and technical support.

Participants

Participants were invited from among groups known to be evaluating I&E in TB control or with interest in pursuing further work. They included managers and staff of national TB programs, NGOs with TB projects, technical assistance partners and researchers, and donors—a total of 54 persons from 16 countries, and 9 from the 22 high-burden countries.

Workshop Objectives

1. To enable participants to share information on the outcomes of national workshops on mapping motivations in DOTS and on recent experiences with implementing and evaluating I&E schemes in TB control

2. To review a prototype of an OR&E guide for I&E schemes developed by RPM Plus and obtain feedback on the approaches used in the guide

3. To identify common interests and concerns of organizing, to evaluate different types of incentive and enabler schemes, and to coordinate efforts to advance research and improve outcomes

4. To define the next steps for piloting and evaluating I&E schemes and for mainstreaming these approaches within larger DOTS scale-up strategies

Methods

The agenda (Annex 1) was organized to stimulate informal discussion and debate on measuring effectiveness, impact, control of perverse effects, generalizability, and feasibility of replicating and/or scaling-up approaches. Presentations, panel discussion, posters, and working groups were used.

REVIEWING RECENT EXPERIENCES

Results of Motivations Mapping Workshops in China, Tanzania, and Uganda

This session briefly reviewed the DOTS motivations mapping workshop methodology developed by Stop TB, the World Bank, and RPM Plus and applied in workshops with national partners in China, Tanzania, and Uganda. The approach aims to enable diverse stakeholders to collectively (1) define key obstacles to DOTS implementation in their setting; (2) identify the underlying problems and their association with the motivations of key categories of participants in DOTS; (3) map these issues by type of response needed, (d) define potential solutions; and (4) outline the next steps to pursue one to three solutions. The workshop in Uganda focused on motivation challenges in scaling up CB DOTS, whereas workshops in China and Tanzania focused on the role of stakeholders in overcoming problems in TB case detection. In all three cases, the mapping workshops resulted in defining potential interventions that improve DOTS performance via improvements in core DOTS practice or that provide adaptations or additions to basic DOTS services.

In Tanzania, the National TB and Leprosy Programme used the results of the mapping workshop as the basis for preparing a proposal to FIDELIS. This study would compare the cost-effectiveness of three different case-detection strengthening interventions (PPM in one district, community-based DOTS in a second, and engagement of public dispensaries in the third). In China, the National Center for TB Control and Prevention is now defining strategies to improve hospital referral or participation in DOTS and related research. In Uganda, emphasis is first focused on overcoming the core management and training problems inhibiting health worker performance.

Recent Research on Enablers and Incentives

This session provided overviews of recently completed assessments or evaluation of the use of I&Es in Cambodia, El Salvador, Haiti, Peru, and the Russian oblasts of Ivanovo and Tomsk. Results from a variety of study designs were presented: three quasi-experimental designs using comparison groups (two in Haiti, one in El Salvador), one quasi-experimental using time series (Ivanovo), two nonexperimental post-test-only studies (Peru, Tomsk), and one qualitative case study (Cambodia). All except the Cambodia program were evaluations of pilot programs. Only the studies in Haiti—Partners in Health (PIH) and International Child Care (ICC) pilots—included evaluation plans as part of the pilot study design; other programs recognized the need for evaluation after the interventions had been implemented. Randomization of clinics or patients to comparison or experimental groups was not done in any of the studies presented.

Key findings from each study and challenges faced in conducting the evaluation are summarized below.

El Salvador

This incentive program (1999–2001) provided food baskets to TB patients once a month, if they adhered to treatment in 9 out of 14 departments. Nonadherence was defined according to four criteria for evaluation purposes. The objectives of the study were to—

- Evaluate impact on patient adherence
- Examine program benefits and limitations
- Ascertain perceived value in treatment adherence (patients and administrators)

Four departments were randomly selected from the incentive and nonincentive areas, stratified according to level of TB incidence. A total sample size of 210 patients, equally divided between incentive and nonincentive groups, was selected from clinic records on a cohort basis. In addition, to address the third study objective, interviews and focus groups were conducted with both patients and providers.

The study found that the food baskets were not associated with higher adherence to TB treatment. In fact, patients who received the food incentive had twice the risk for nonadherence. Several factors, due both to implementation and study design, were proposed as contributing to the study results—

- Implementation of the food basket incentive was irregular, due to a lack of clear standard protocol.
- Providers did not uniformly understand that the objective of the incentive was to improve treatment adherence.
- There was low buy-in from administrators, which led to management and monitoring problems.
- Irregular implementation of the incentive led to a selection bias—patients who consumed large amounts of alcohol were more likely to receive the incentive but also were more likely to drop out of treatment, thereby confounding the results.
- Irregular implementation also meant that only 50 percent of the expected patients actually received the food basket, thereby reducing the sample size of the study below what was required for sufficient statistical power.
- Lack of a formal evaluation plan in the pilot design hampered understanding of whether food baskets actually did function as an incentive for patients.

Study Strengths

- Use of comparison group

Randomization of study subjects to experimental and comparison groups

- Analysis of confounding factors
- Use of qualitative approaches to better understand perceived value of the incentive

Evaluation Challenges

- Lack of defined objectives and implementation protocols introduced inconsistencies and selection bias, which then affected both the operations of the incentive and the ability of an evaluation study to detect effects.

- Evaluations that are planned post-implementation inherently face many more limitations in assessing impact; therefore, plans for formal evaluation should be built into the incentive implementation plan.

Haiti—ICC project

This incentive scheme (1999–2001) provided food to all sputum-positive TB patients and their treatment partners through 27 TB clinics as a pilot initiative. Receipt of the food was not tied to treatment adherence. During scheme design, planners found that the providers were also very poor, making the risk of food pilferage and general resentment high; as a result, food was also given to formal providers for participating in the project. The incentives scheme had significant management burdens, especially with procuring, storing, and distributing food stocks. The study objectives were to discover the following—

- To what extent did the food incentive improve the patients' and treatment partners' adherence?

- Did the food incentive really improve the operational effectiveness of the TB program in the ICC area?

Fourteen clinics in the ICC areas where no food incentive was provided were selected as comparison groups. Cure rates, treatment success, and defaulter rates were examined for each group. In addition, interviews with treatment partners and all sputum-positive patients were conducted to establish a "fidelity index."

Study findings show improvements in all three outcome indicators of interest in both the comparison and the experimental groups. In the pilot areas, cure rates increased by 18.5 percent, and default rates were more than halved (from 19 percent to 8.5 percent); in the comparison areas, cure rates increased by 18.1 percent, and default rates fell by 4.3 percent.

Study Strengths

- Use of comparison groups
- Formal evaluation plan from the outset
- Use of qualitative interviews to supplement quantitative analysis

Evaluation Challenges

- Comparability is difficult because the pilot and comparison areas did not have similar baseline levels of the outcome indicators of interest; all the pilot clinics started out worse on all three indicators.
- Selection bias may exist because of this difference in baseline performance levels; further analysis is needed to determine the extent and possible effects of this bias.
- DOTS may have been implemented differently in the comparison and pilot areas, which led to the observed differences in the baseline cure rates, further distorting the study results.
- The analysis challenges are substantial in multifaceted programs. Because more than one intervention was implemented at the same time in the same areas, more problems arose with baseline comparisons and attributing any observed impact to specific interventions.
- Additional and more appropriate analyses are needed to more accurately illustrate the impact of the incentives, especially to adjust for baseline performance differences and control for DOTS implementation differences.

Ivanovo Oblast, Russia

This scheme (2000–2001) provided food for good adherence, free transport to the clinic, and education and entertainment for TB patients initially in Ivanovo city and three districts, and it expanded to the entire oblast at the end of 2000. The objective of the study was to monitor cure, failure, default, and deaths in a cohort of patients registered in the third quarter of 2000 (approximately 1,200 patients total). Qualitative interviews with patients and providers were included as part of the evaluation, as was a cost-effectiveness analysis; findings from the economic analysis were not presented.

Study findings show that cure rates increased from 75 percent in 2000 to 82 percent in 2001. Cure rates had previously been falling, from 1996 to 1999, from 73 percent to 68 percent. Findings from the qualitative component of the study showed that patients and providers quickly became accustomed to the food packages and came to think of them as assistance from donors, not as an incentive for adherence. Adherence drifted downward for several months before the interviews identified the problem. Provider and patient education rectified the situation, and adherence increased again after five months.

Study Strengths

- A multimodal approach was taken to evaluation.
- Cost-effectiveness analysis was included.
- A formal evaluation plan was included in the pilot design.

- This natural experiment demonstrates that providing non–performance-based incentives does not have the same impact—adherence drifted down when providers forgot that the food packages were rewards for good behavior (over a six-month period, from approximately 89 percent to approximately 82 percent).

Evaluation Challenges

- No comparison group was used; to comply with time-series design, further monitoring of cure rates is needed to solidify the study findings.

- Ongoing DOTS improvements make attributing results only to the incentives scheme difficult; use of many different incentives makes understanding which type was most effective difficult. However, the natural experiment of food packages being taken for granted by both patients and providers gives some indication that this incentive did have a positive impact on adherence, regardless of other simultaneous DOTS improvements and incentives.

Partners in Health—Treatment of Multidrug-Resistant TB Patients in Haiti, Tomsk Oblast in Russia, and Peru

In the Haitian pilot project (1990), multidrug-resistant (MDR) TB patients were assigned a treatment partner who linked the patient with comprehensive support services: financial aid, nutritional support, and transportation costs, as well as daily visits from health workers, free treatment, and drugs. In the comparison group, patients received TB treatment and drugs for free. In the experimental group, higher rates of sputum conversion (100 percent versus 86.6 percent), lower mortality (0 percent versus 10 percent), greater increases in weight (10.4 pounds versus 1.7 pounds), and improved cure rates (100 percent versus 56.7 percent) were found.

In Peru (1996–1998), a community-based treatment program for more than 1,400 MDR-TB patients achieved a cure rate above 80 percent with a package of social and nutritional I&Es. Patients were given assistance with food, transportation, ancillary medications and testing, housing, and finding work; the socioeconomic assessment team determined the type of assistance given based on patient needs. Most patients (more than 90 percent) received food and transportation assistance, all received free ancillary medicines and testing, and less than 10 percent received assistance with housing and work.

In Russia (2000–2002), MDR-TB patients from prison and civilian populations were targeted. More than 400 patients were enrolled in the comprehensive support program, and a cure rate of more than 82 percent was achieved. Patients were provided with transportation and food (or prepared meals, in the case of hospitals and prisons). Simultaneously, DOTS coverage among DOTS-Plus patients increased from 30 percent at the end of 2001 to 80 percent at the end of 2002; this may have also contributed to improved cure rates.

Study Strengths

Haiti: Use of comparison group
Focus on MDR-TB patients

Evaluation Challenges

No comparison areas were used, since they are not compatible with the PIH approach and philosophy; however, data from areas where PIH did not work in the same country could be used for comparison.

- Baseline cure rates are not presented and could be included.

- A multifaceted package of incentives is clearly integral to the PIH approach; however, for programs that cannot provide a full set of social support services, understanding which enablers are most effective is difficult. The PIH Haiti study states that enablers that address hunger and poverty are the most needed.

Cambodia

In Cambodia, dry food rations are provided to all TB patients, nationwide, regardless of sputum positivity. The food support program began in 1993, with the assistance and collaboration of World Food Program (WFP). In 2002, a case study approach was used to document the program and its management, as well as to better understand what contributions to TB program performance the food support might be making. This study approach included document review, partner interviews, provider interviews (managers, supervisors and health workers at central, district, and facility levels), patient and patient family interviews, and hospital and health center visits.

Findings from the case study indicate that food support is seen as an essential element of the national TB control strategy and DOTS service. There is a perceived impact on treatment adherence, and a perception that food is an important enabler for TB patients in a country with a high poverty burden and food insecurity. However, any impact on case detection was difficult to determine. Cured patients and their families were identified as powerful communicators and promoters of TB treatment. However, logistics and food distribution infrastructure requirements are substantial for both WFP and the Ministry of Health (MOH) in operating such a large-scale food support program for TB patients. Coordination between MOH/Centre National Anti-Tuberculeux (CENAT) and WFP has been crucial for creative problem-solving, effective monitoring, and program evolution and success.

The case study also suggested some criteria that other TB programs should consider prior to embarking upon a large-scale food support program—

- Is there a well-functioning and well-managed TB program in place?
- Is treatment adherence a major TB performance challenge?
- Are food security and income poverty challenges for the target population?
- Is there a preexisting food procurement and distribution infrastructure?
- How much of a challenge will monitoring and leakage prevention be?

Study Strengths

- Although formal evaluation was not possible, important lessons were learned through the documentation process, demonstrating that documentation without formal evaluation is also valuable.

- Perspectives of providers, patients, managers, and administrators of the food support program were included.

Evaluation Challenges

No comparison areas were available due to rapid expansion to full country coverage.

- Food support was implemented alongside DOTS, so it was difficult to distinguish any added impact over time.

- The impact of food support may change in the new service delivery model, as the program decentralizes and moves to ambulatory provision of drugs for intensive-phase patients.

- Determining whether the food has had an impact on cure rates, and how much of an impact, and whether there is any effect on case detection is problematic because of the lack of comparison areas. There may be a window of opportunity to take advantage of the gradual reform of the health system to compare areas over time, as the new TB treatment model is implemented in new areas.

Planned Research on Enablers and Incentives

Four presentations were given of planned or ongoing research: (1) an operations research study comparing different types of patient I&Es provided by the American Red Cross in Kazakhstan; (2) a pilot incentive scheme for patients in Tajikistan, organized by Project HOPE; (3) an assessment of community engagement in DOTS delivery organized by the Damien Foundation in Bangladesh; and (4) piloting of I&Es for homeless TB patients in the Czech Republic. Each of these projects is in the early stages of assessment. The presenters were asked to review evaluation objectives and the methodological challenges that they face.

American Red Cross—Kazakhstan

Three types of enablers and incentives are provided to all TB patients at selected TB clinics—monetary incentives (approximate U.S. dollar [USD] 1.50); food (hot meals in the DOTS clinic); and visiting nurse support (enabler). A comparison area with no incentive or enabler is also included in the study design. The objectives of the study are to assess—

Patient completion of DOTS and cure rates
Factors that may be influencing patients' completion rate, other than incentives
Cost and effectiveness of incentives
Satisfaction with incentives

The study presents a strong design that will allow comparison of different types of enablers and incentives with each other and with a nonincentive group.

Evaluation Challenges

- Prevention of pilferage is an operational concern, as is prevention of patient crossover between study areas. In addition, since one incentive requires kitchen facilities, selection of clinics must be purposeful.

- Accounting for baseline differences in groups will be important. Measuring characteristics of clinics, providers, and patient preferences is especially difficult, though investigating them may be easier using qualitative methods.

- Cost-effectiveness analysis will be important to optimize the comparison of study findings and increase understanding of any observed differences in impact among the different types of incentives.

Project HOPE—Tajikistan

This scheme provides food as an incentive for all TB patients and workers. The objectives of the food support include increasing DOTS access to the poorest patients and increasing patient support throughout treatment (addressed by provider incentives). The study uses food as an enabler, by stating the objectives of increasing nutritional and immune status of the patient and reducing the burden on the family of TB treatment. The food support takes three forms: vulnerable group feeding, which includes the patient and the immediate family; food for work, which provides TB workers with food; and institutional feeding for inpatient treatment of TB. The study design does not currently include comparison groups nor is the evaluation plan clearly developed.

Study Strengths

- Objectives of the incentive scheme are clearly stated.
- Cost analysis is included in the evaluation plan.

Evaluation Challenges

- Operational challenges—human resource capacity is needed for administration and management, especially for selecting patients and families for vulnerable group feeding.

- The objectives of evaluation and its design are not clearly developed.

- It is important to prevent “ghost” TB patients and crossover of nonvulnerable families into the vulnerable group—without excluding vulnerable families.

- Because all types of incentives are being implemented in the same areas, understanding any interactions and synergies between the incentive schemes will be difficult.

- Cost-effectiveness measures must include management and administrative costs. Sustainability, especially for the provider (food for work) scheme, is a concern.

- Concurrent implementation of the different incentives means that analysis of results will be complex.

Damien Foundation—Bangladesh

In 2002, Damien Foundation began organizing groups of cured TB patients to mobilize communities to identify suspected TB cases and provide treatment support to patients. The objective was to increase case detection and improve cure rates. Organizing the TB clubs required more human resources than anticipated, so many Damien Foundation areas were not covered by TB clubs by the end of 2003. This provided an opportunity to collect existing data and retrospectively assess the impact of TB clubs on case finding and cure rates. Comparison areas will be selected from other Damien Foundation areas—86 unions with TB clubs and 86 without (approximately 1,500 patients total). Experimental and comparison areas will be matched on baseline characteristics such as case detection rates and average distance to the TB clinic. Data will be analyzed for one year prior to the implementation of the TB clubs and one year after.

Study Strengths

- The design takes advantage of a natural experiment situation to use retrospective analysis.

- Comparison areas will be matched on key factors hypothesized to influence the outcomes of interest.

- Pre- and post-intervention data is used.

- Cost analysis is included in the evaluation plan.

- Findings will feed into planning for next-stage expansion of TB clubs.

Evaluation Challenges

- Matching requires a great deal of preliminary data analysis and comparison.

- It would be important to incorporate costs into the assessment of TB club impact—especially since it was a time-intensive intervention.

- It may be difficult to determine the additional impact of TB clubs, as distinguished from the regular patient education involving referral of those suspected of being infected.

Czech Republic

This program seeks to improve case detection among the homeless in Prague. The national TB program (NTP) works with 10 partner nongovernmental organizations (NGOs) in locating the homeless and inviting them to come for diagnosis. Transportation is provided. Financial incentives (coupons for purchasing goods) are given to the patients after completion of bacteriological or X-ray examinations to detect infection. Patients with positive pathological results are hospitalized and provided free treatment for their particular condition, including TB. Case notification improved, although the data were presented in a way that made comparison difficult.

Evaluation Challenges

- There will be a need to prevent cured patients from returning just for the food (i.e., "ghost" patients).
- Comparison groups—perhaps homeless populations in other cities/countries—should be identified for valid impact analysis.
- Impact analysis should use percentage increases as well as absolute numbers.
- Sustainability is a concern—also, should other high-risk groups be targeted?

Conclusions from Discussion Following the Panel Sessions

Incentive and Enabler Scheme Design

- The objective of the enabler or incentive must be clear to both patients and providers. Standard implementation protocols can minimize variability in implementation, which can affect impact.
- The choice of beneficiaries can affect scheme success—families or communities may multiply the impact. The choice of beneficiaries can also introduce selection bias into the assessment of impact—for example, if incentives are targeted toward groups with low adherence or high risk of TB.
- Little is known about the relative effectiveness of patient incentives versus provider incentives or about any synergies and interactions between them, although in several settings, provider incentives had to be included with patient incentives, as part of viable scheme implementation.
- Presenters all highlighted the significant management and administration requirements of I&E schemes, especially for food. Sustainability and cost-effectiveness concerns require that costs of the scheme also include these resources when assessing impact.
- Needs-based assessments before implementing an incentive and enabler (I&E) scheme were shown to be useful for identifying both target groups and appropriate incentives.

- Cured patients and families of cured patients may be powerful promoters of case detection and referral and can play a supportive role during the treatment process.

- Tying receipt of the incentive to performance may result in a larger impact.

- Potential perverse effects can be anticipated and planned for in the scheme design; unanticipated perverse effects can often be solved through communication, retraining, and coordinated efforts among all the partners involved.

Evaluation Design and Impact Assessment

The key challenge in assessing the impact of an incentive or enabler scheme is attributing any observed changes to the scheme itself. Typically, other DOTS improvements and health system reforms are occurring simultaneously. Several possible approaches to minimizing this problem were proposed—

- Use comparison groups. Identifying control groups or using randomization may not be possible, for operational or ethical reasons, but there may be comparable areas where other interventions are taking place, but I&E schemes are not.

- If possible, match the comparison areas with the pilot areas on baseline levels of the key indicators to be measured and on characteristics that are hypothesized to affect the outcomes of interest.

- Measure the inputs of simultaneous interventions that may affect TB program performance, in both pilot and comparison areas. If measurement is not possible, documentation is always useful.

- Consider using qualitative approaches to investigate whether the concurrent interventions had any effects on TB program performance.

- When programs are faced with a study design that is less than ideal and multiple simultaneous interventions that may improve program performance, pay special attention to the analysis methods, which may require additional technical assistance.

Participants felt that the importance of having a comparison or control group was highlighted by the second series of presentations. Because TB programs need to know what to spend scarce money on among many choices, it is necessary to tease out the impact of different initiatives, and there must be a control group design to do this. Not having a comparison group really creates problems, although having one doesn't solve everything.

Ethical issues surrounding evaluation study design were also a concern. Participants expressed reservations about using a randomized design if certain kinds of incentives were involved, such as food, or in high poverty situations. The point was made that randomization can also occur at the clinic or administrative area level, not the patient level, and may offer a more ethically comfortable evaluation design. Ethical concerns should not hinder progress and innovation in the

evaluation of I&E schemes or in DOTS innovation, some felt. Participants considered whether it was also an ethical issue to spend money in the best way possible and what role better research can play in fueling and informing the debate about what is worth spending money on, given all the choices that are available to TB programs.

FRAMEWORK FOR OPERATIONS RESEARCH AND EVALUATION OF INCENTVES AND ENABLERS

This session introduced and discussed a framework for OR&E of I&E in TB and proposed a tool to assist programs in applying the framework. RPM Plus presented the initial conceptualization of such a framework and tool, based on the experiences of the joint work program of the Stop TB/World Bank and RPM Plus team; input from country, regional, and global partners gathered through those experiences; and specific testing of the framework application in developing three OR&E studies in one country setting (Bangladesh).

The presentation emphasized the importance of using data to inform decision making, reinforcing many of the questions and concerns brought up by participants in the previous sessions. Also stressed was the need for strong operations research (OR) design and explicit evaluation plans to assess the impact and cost-effectiveness of incentive/enabler schemes in order to better inform policy decisions. Challenges to collecting the needed information were addressed, as were the significant gaps in current knowledge. Specifically, the session provided an overview of methodological issues in OR design and evaluation of incentive/enabler schemes. The framework for strengthening OR&E efforts was introduced, focusing on four areas: (1) design of the enabler or incentive scheme itself; (2) systematic design of OR&E and evaluation studies; (3) data analysis, presentation, and publication; and (4) knowledge sharing and information dissemination. The elements of a draft OR&E guide were introduced and proposed as a tool for assisting programs with the second and third areas in particular. RPM Plus requested participant input to assist with the guide's development and revision. Participant responses were positive, and the need for an OR&E framework and tools, such as a guide including model protocols (similar to the one conceptualized and presented by RPM Plus), was endorsed.

Discussants were asked to address certain aspects of OR methods and approaches: qualitative methods (Gillian Mann), quasi-experimental designs (Peter Cegielski and Knut Lönnroth), and survey methods (Diana Weil, on behalf of Christy Hanson). Discussion points for each are summarized below.

Qualitative Methods

- Qualitative studies are particularly useful in designing an incentive or enabler scheme. Several of the panel presentations (Romania, Russia Ivanovo Oblast), noted that needs assessments and interviews with providers and beneficiaries helped identify the most appropriate types of incentives.

- The context in which an I&E scheme is implemented is often difficult to measure quantitatively, but as several presentations highlighted (Haiti, El Salvador, and Romania), social, economic, and health systems context can greatly influence the performance of the scheme. Qualitative methods are good for documenting and keeping track of potential contextual effects.

- The community should be considered an enabling environment for TB patients; participatory qualitative approaches, such as participatory rural appraisal, can be useful in mobilizing and engaging the community for TB control, as well as contributing to evaluation efforts. Similarly, scheme effectiveness and success of evaluation efforts depend to some extent on local partner involvement and acceptance; qualitative approaches such as focus group discussions help to involve local stakeholders in the process from the start.

- Gender and equity, in particular, are often the result of a dynamic set of interacting forces and may best be investigated by qualitative methods.

- Critical incidence narratives, or timelines, constructed through interviews with TB patients and suspects can help in understanding barriers to access (and therefore to increased case detection) and in identifying enablers to help overcome these barriers.

Quasi-Experimental Designs

This area may be newer for people accustomed to epidemiological approaches. Key areas that differentiate quasi-experimental designs from more traditional epidemiological studies are discussed below—

- Using comparison versus control groups—in field-based OR&E situations, it is not possible to control all possible factors that may affect an intervention. Similarly, it may be unethical or operationally difficult to randomize patients to different groups or to keep patients from crossing over from one group to another.

- Therefore, it is important to keep track of contextual factors, to document concurrent secular trends and present hypotheses about how they may have affected the intervention outcomes.

- If possible, matching comparison groups on key characteristics may be used to control for external factors. These characteristics should be selected based on their hypothesized relationship to the outcome variables of interest.

- Quasi-experimental designs are possible in both prospective and retrospective studies. They can be done without comparison groups, but only if data are collected over several time points, both before and after intervention. Therefore, retrospective quasi-experimental studies are possible only if routinely collected data are available.

- Representativeness must be addressed by adequate sampling techniques, as must study power (as demonstrated by the El Salvador study limitations). In retrospective studies, it is important to clearly identify the risk factors.

- Case examples from participants in the incentive or enabler scheme can be powerful supplements to quantitative studies.

Survey-Related Research

Household surveys, facility-based surveys, and follow-up surveys of TB patients could all be of substantial support to the investigation of the need for I&E, as well as for evaluating their utilization and impact. For all three types of surveys, proper sampling is critical to ensure validity and ability to generalize the results. Training of interviewers can also be challenging, particularly if the surveys are addressing multiple research questions and obtaining information from multiple levels of staff.

For I&E, three sources of information could be useful—

- **Household-based surveys** are appropriate for gathering information on care-seeking for adult respiratory illness, barriers to accessing care, obstacles to continuing treatment, support networks used by TB patients, past experiences with public and private providers, and awareness about TB and DOT. In TB control, community-based surveys have, until recently, been largely restricted to disease surveillance. Recent surveys in several countries have explored who is being reached or missed in TB treatment, with a special focus on the poor. Because household surveys are costly and complex to design and conduct, it is unlikely that they should be used solely for the purpose of designing or evaluating an I&E scheme for TB; however, opportunities to include extra questions in planned or ongoing surveys may be available. For example, efforts are underway to include questions on TB symptoms and care-seeking for adult respiratory illness within the Demographic and Health Survey (DHS).

- **Facility-based surveys** are useful for documenting the knowledge, practices, and perceptions of health workers; barriers to seeking care among general clinic patients as well as registered TB patients; patient satisfaction with services; and challenges to TB patients staying in treatment. Results can be used for designing appropriate interventions, or for monitoring and evaluating the effectiveness of interventions; however, proper sampling of facilities is critical to the validity of the results.

- **Follow-up surveys of TB patients** registered in treatment programs with or without I&E interventions are especially useful for assessing needs, intervention effectiveness, and perceptions of quality of care. Among the major challenges is reaching patients no longer in treatment in their homes or in the community, whether they completed treatment or dropped out—to avoid selection bias, both groups should be included. Patients who obtained a diagnosis but did not return for treatment usually can't be included, although these people may be in greatest need of I&E and social support.

WORKING GROUPS ON CROSS-CUTTING EVALUATION CHALLENGES

After further discussion about the need for and necessary elements of an OR&E framework for TB I&E, workshop participants separated into the following working groups—

Group 1: Evaluating ongoing I&E schemes
Group 2: Designing and evaluating new I&E interventions
Group 3: Interpreting findings and attributing results
Group 4: Addressing challenges to scale-up and replication

These themes were selected according to areas of methodological challenges that are cross-cutting, regardless of the type of incentive or enabler scheme used.

Working Group 1: Evaluating Ongoing I&E Schemes

As a departure point for discussion, participants from five countries (Bangladesh, Brazil, China, Georgia, and South Africa) presented their own experiences with evaluating or planning for evaluation of ongoing schemes. Key questions and challenges identified by the group included—

- Controlling for external factors, especially concurrent DOTS initiatives
- Managing and assessing the effects of changing circumstances; evaluation targets often change over time
- Distinguishing between provider and/or patient schemes
- Understanding how much information is enough
- Limitations of the availability and accuracy of data needed
- Limitations if no baseline data available
- Comparison groups not available or difficult to define and identify

Possible solutions to these challenges were proposed by the group—

- Using qualitative assessments and case study approaches
- Identifying appropriate study design according to data available, instead of trying to fit data to an ideal study design
- Using timeline comparisons of routine data

Key questions that any evaluation of an ongoing scheme should answer—

- What were the objectives of the scheme?
- Is it distinguishable from DOTS?
- Are there logical comparison areas? If not, how could they be built in afterward? If this is not possible, how can we compare as much as possible?
- What should we do when baseline (or other) information is unavailable? What are the design implications? How does what we can do compare with what we want to do?
- Are there political risks to conducting evaluation?
- Are cost data available—is there a way to build this in?
- How do we best control for context and secular changes?

Working Group 2: Designing and Evaluating New I&E Interventions

The second working group identified several steps needed when building in evaluation to a new I&E scheme—

- Define target population (beneficiaries).
- Establish evidence-based I&Es—what are the hypothesized effects, and what indicators will show these effects?
- Establish the goal and research objectives of the scheme (two separate but related things).
- Determine the range of stakeholders and their roles.
- Define measurable outcomes and determine how the information will be collected and how often it will be collected.
- M&E indicators usually include measures of feasibility (cost-effectiveness), comparability, and ability to replicate results. Intermediate outcome and process indicators should be considered alongside of outcome indicators.

Other key issues were highlighted—

- New I&E schemes offer the opportunity to conduct well-designed evaluations and piloting, possibly including comparison groups and baseline data.
- With new schemes, qualitative/quantitative research (such as a feasibility study/needs assessment) can be conducted before their implementation. Target populations and motivational issues that might affect patients and/or providers and interventions to

overcome these issues can be identified in advance, and interventions that are most appropriate can be also be identified then. This is a good opportunity to determine measurable outcomes and establish systems for M&E monitoring and evaluation and to determine what people most want and need, thus anticipating barriers to care.

- New schemes are an opportunity to bring together stakeholders and consolidate the different priorities that various partners may have.

- Sustainability, financing, and possible perverse incentives of the scheme can be considered during the design phase.

- Guidelines for evaluating I&E schemes would be useful, as would establishing some sort of infrastructure to foster common initiatives and ensure that the evaluations of I&E schemes are comparable.

Working Group 3: Interpreting Findings and Attributing Results

This group began by identifying factors that could affect the observed impact of an I&E scheme and, thereby, make it difficult to attribute results and interpret findings. These facts included—

- I&Es' effect on provider and staff attitudes as well as general clinic performance.

- Historical changes and secular concurrent trends such as natural disasters and economic changes.

- Likely impossibility of implementing only I&E, without other concurrent interventions (ongoing DOTS strengthening efforts and health sector reform).

- Economic effects of food support on consumption and local food production.

Possible solutions were proposed—

- Develop hypotheses about what the important confounding or intervening factors might be and how these factors could affect the outcomes.

- Do qualitative assessments of these factors, if not measured ahead of time.

- Measure inputs to concurrent DOTS-strengthening initiatives (for example, training, supervision, lab quality) and include them in the analysis.

- Do "change" analysis—don't just look at absolute levels of indicators, but examine rates of change in the same time period and over different time periods, if possible.

- Calculate cost-effectiveness ratios (relate impact to cost).

Other key issues were highlighted—

- Controlling for confounding or intervening factors means identifying the factors and finding ways to measure them and include them in the analysis of data. Therefore, evaluation efforts need to consider possible confounding factors from the outset.
- Cost effectiveness helps managers make choices when investing scarce resources. Many options are available to improve DOTS program performance, and cost-effectiveness analysis is necessary to understand where the most impact for money can be found.
- Time trends are more useful than most people think.
- Question the assumption that improvements are due to the scheme—what else could be responsible?
- In general, there is currently a very dynamic context within DOTS program and the health sector that can be both conducive to inclusion of I&E schemes and a detriment to understanding their impact.
- What are possible indicators that can be monitored to watch out for any perverse and adverse effects?
- Establishing guidelines to help differentiate the evidence available and to help assess how "optimal" an I&E intervention is. Ideally, one could weigh the evidence available depending on study design strength—thus grading the strength of the evidence available on the impact of I&E schemes in TB control.

Working Group 4: Addressing Challenges to Scale-Up and Replication

The last working group discussed challenges to scaling up and replicating I&E schemes, focusing primarily on identifying a list of the main prerequisites necessary for scale-up, which include—

- Stakeholder involvement
- Commitment to financing
- Availability and motivation of human resources—quantity, quality, and training
- Ability and infrastructure to conduct ongoing monitoring and evaluation
- Cooperative and collaborative partnerships and coordination
- Functional guidelines/standards to facilitate policy development and integration with the health system as a whole
- Communication on all of the above

Key questions for scale-up and replication were also identified—

- How can pilot areas be more representative?
- How can stakeholders be engaged from the start of design and implementation of pilots?
- How can stakeholders who were not involved in pilots be encouraged to review results or view experiences with I&E, as a means to increase the demand for scale-up?
- How can initial resistance to use of I&Es or special initiatives that are seen as not sustainable be reduced? How can data be used to this end?
- How should financing be sought for the medium term, not just the pilot phase?

Conclusions from Plenary Discussion Following Working Groups

Common themes and issues among all the cross-cutting evaluation challenges were identified during discussion—

- The importance of considering both quantitative and qualitative evaluation methods
- The need to involve all stakeholders from initiation of scheme design
- The importance of including comparison groups and ensuring that they are as comparable as possible
- The possibility of using evaluation as a mechanism to bring together stakeholders and encourage discussion
- The importance of being aware of the terminology being used, for example, “evaluation” versus “research,” or “comparison” versus “control”

Objectives for Day 2

The objectives of the second day were to gather lessons learned from facilitating coordinated research efforts on another innovative approach to DOTS expansion, the public-private mix (PPM) subgroup, and to then to identify how coordinated research efforts could be developed, according to specific incentive and enabler types and themes.

LEARNING FROM THE PPM RESEARCH COLLABORATION

An overview was provided on the PPM DOTS subgroup of the WHO and Stop TB Partnership DOTS Expansion Working Group. Knut Lönnroth presented several key steps, challenges, and elements from experience with facilitating a common research approach in PPM. Several are particularly relevant to the initiative to build global evidence on the impact of I&Es in TB—

- Similar to TB I&E, WHO began the PPM initiative by establishing an inventory of where and how the private and public sectors were working together.
- The next phase was facilitating and coordinating operational research. A call for "from research to policy" proposals was sent out, and four operational research studies were accepted and funded by the Global Alliance for Health Policy and Systems Research.
- The studies functioned through a coordinated network and were conducted using a common framework and similar protocols so that results would be as comparable as possible.
- Mentors were assigned to each study from both local and foreign academic institutions. All work was done jointly. Local organizations took the lead in developing the PPM intervention strategy; the PPM subgroup and mentors took the lead in developing the evaluation strategy.
- At each site the following were assessed: feasibility, effectiveness, process (hindering/enabling factors for both outcomes and intermediate), and reasons for variability (success and failure factors). Research design allowed for the monitoring of hypothesized confounding factors. Indicators need to be comparable in order to be able to say something about variability.
- Midway through the project, a dummy report was developed and distributed by the PPM. This reminded research teams of the end goal and of the indicators each team should collect—a useful mechanism to ensure things were on track.
- This coordinated research effort produced results from four studies that were comparable. These studies in turn assisted with the development of a generic PPM model that outlines the essential components of a PPM initiative and the core indicators of the generic model.

The PPM experience with global research efforts highlighted six key strategies to best coordinate and facilitate research to lead to policy impact—

- Go to the field.
- Facilitate projects originating from the field.
- Have a common analytical/evaluation framework.
- Plan evaluation before launching.

- Work across boundaries (partnerships across institutions, countries, sectors).
- Get results published.

During discussion, it was stipulated that the I&E work program was at the stage to begin exploring opportunities for coordinated research, which would contribute to the guidelines for common research. The TB I&E work program should consider at this time the mechanisms to be used for ensuring coordination and financing options for the research studies. However, it was unlikely that a generic model for I&E would be developed, because this task is not an objective of the work program. I&Es differ substantially from PPM, in that there are many formats and approaches of both enablers and incentives, and it is more likely that I&E would be an element of most DOTS expansion efforts, not an independent model for expansion. Following from this, it was established that a separate working group on TB I&Es is not necessary; however, active encouragement of explicit attention to the stakeholder motivation in other Stop TB working groups and DOTS expansion innovations could advance the wider piloting and systematic evaluation of TB I&Es.

WORKING GROUPS ON THEMATIC ISSUES AND COLLABORATION

Following the PPM presentation and discussion, participants broke into working groups to identify how common research and further collaboration could be facilitated across four specific I&E themes and approaches—

1. Food support to patients
2. Patient incentives not focused on food
3. Incentives for formal providers
4. Incentives for nonformal providers

Working Group 1: Food Support to Patients

This working group's discussion addressed the objective and structure of food support programs, challenges in implementation and financing, evaluation of food support programs, and areas for which coordination is most needed (more details in Annex 4). The first step in moving toward evaluation was to define the interventions and their objectives.

The group suggested that food support generally takes three forms and may be influenced by the economic context of the country. The three forms suggested are—

1. **Large-scale food support programs:** In low-income countries, TB patients may be included as one of numerous beneficiary groups at high risk of malnutrition or food insecurity.

2. **Food support targeted to TB patients:** In middle-income countries, food support programs may be offered via small-scale projects, such as for TB patients or other high-risk groups.

3. **Food support targeted to a subset of TB patients:** In various settings, hard-to-reach or high-risk TB patients—such as the poor or socially vulnerable, including homeless persons, refugees, former prisoners, or substance abusers—may be targeted for food support.

Regardless of the setting, food support generally seeks to meet several aims: (1) to provide nutritional support to vulnerable individuals, thus enhancing treatment success and overall health; (2) to facilitate participation in TB treatment programs by reducing overall income losses in seeking or staying in care; and (3) to encourage full adherence to the prescribed course of treatment.

The relative importance of these objectives may vary, depending on the setting and on individual patients. For example, in low-income countries or areas where there is a significant poverty, food support may be considered to be more of an enabler than an incentive. It may be seen as necessary nutritional support, and accepted as a potential benefit to the family as a whole. In middle-income settings, food may be seen purely as an incentive to attend the clinic, and it may

not be acceptable for other family members to benefit. Therefore, in low-income settings, dry food rations may be more feasible, whereas hot meals at clinics may be considered a more appropriate form of food support in a middle-income setting.

Implementation challenges will also vary in relative importance. For example, it was hypothesized that, in the context of high poverty levels, corrupt providers and patient abuse of the scheme may be greater challenges. These obstacles might be the case with food support targeted to socially vulnerable groups such as drug users and the homeless. However, several implementation challenges common among all the food support scenarios were suggested—

- *Administration:* Determining who is responsible.
- *Logistics and distribution:* The burden increases with patient volume, keeping track of and storing stocks, and not wanting to burden TB clinic staff.
- *General management:* This challenge entails not only providing an on-time supply of good-quality food stocks to beneficiaries but also protecting against misuse or loss. Identifying logistical and management needs and planning adequately for them must begin before decisions are made on adopting the approach and before implementation begins. (This need was demonstrated by the Cambodia case study.)
- *Objectives and protocol for scheme implementation:* These challenges need to be made clear to all staff involved, and in some cases, to the patient. Reinforcement is needed after the scheme has been in place for some time. (See, for example, the El Salvador and Ivanovo experiences reported earlier in the workshop.)
- *Evaluation:* Lack of plans for evaluation at the outset of the food support scheme has made it difficult to determine from the experiences to date what the extent and nature of impact has been.

The group endorsed the value of multicountry coordination and knowledge sharing in the following areas: guidance on access to financing and food logistics support, technical assistance, tools for M&E, best practices, and joint advocacy.

Working Group 2: Patient Incentives Not Focused on Food

This working group discussed types of I&Es, other than food, that target patients. Although the main regional focus of this group was on Eastern Europe and the former Soviet Union, some other countries' experiences were also discussed (more details in Annex 4). The discussion began with current participant experiences with different types of patient incentives.

Issues highlighted in discussion—

- I&Es used for patients in this region are usually for target populations rather than all TB patients within a given geographical area. Examples include ex-prisoners, the homeless,

and drug addicts. However, in some cases all TB patients in a given area are targeted by the I&E scheme.

- A wide variety of patient support mechanisms being used can act as both enablers and incentives. Examples include hygiene kits, clothing, counseling, assistance in obtaining national identity cards, legal assistance, transport subsidies, financial incentives in small amounts, as well as food baskets or meals.

- Needs assessments conducted prior to scheme implementation were the key to identifying the range of appropriate patient incentives that could be used.

- In Russia, a high-level working group to address I&Es in TB assists with technical protocol development and definition of assessment criteria for I&Es. The group is in the process of developing guidelines and recommendations on the use of I&Es and is currently exploring how best to disseminate these guidelines.

The group identified two common incentive scheme objectives—

- Increasing cure rates
- Improving adherence—both treatment completion and clinic visits

Following from these objectives, the group identified some common evaluation elements—

- Needs assessment to identify incentives
- Feasibility of intervention—are comparison groups possible?
- Demonstration of effectiveness and impact of incentive

Some common evaluation indicators (both outcome and process) were proposed—

- Compliance/treatment adherence
- Cure rates
- Default rates
- Intermediate measures—case finding, number of referrals

Working Group 3: Incentives for Formal Providers

The third working group discussed evaluation of I&E schemes that target formal TB service providers. The group primarily discussed the experience in China, noting that direct financial incentives can be provided either for referring TB patients or for supervising and completing treatment. Other nonfinancial incentives have been useful in stimulating provider performance (e.g., improved working conditions, such as lab safety; recognition and awards; trainings/seminars; and free medications).

The group then proposed some common outcome indicators that could be used for evaluating all types of incentive schemes that are provider focused.

Outcome Indicators

- Case detection rate
- Treatment success
- Amount of medicines used from private sector (rational use of medicines)
- Equity

The group then considered some process and intermediate indicators and realized that such indicators would be quite dependent on the nature of the incentive or enabler. The group recommended formative studies, both qualitative and quantitative, to determine the most appropriate types of incentive or enabler, and the most appropriate indicators for those I&E schemes.

Process/Intermediate Indicators Proposed by the Group

- Change in provider attitude toward treating TB patients, or to providing DOTS
- Change in provider's knowledge about TB and DOTS
- Change in job satisfaction
- Change in profitability and patient volume
- Quality of DOTS implementation

Working Group 4: Incentives for Nonformal Providers

The final working group addressed evaluation of schemes that target nonformal TB providers. Discussion first centered on the definition of who these nonformal providers of DOTS are likely to be: community-based volunteers, cured TB patients, work groups and employers, shopkeepers and drug sellers, traditional healers, untrained medical providers (quacks), family members, religious and community leaders, traditional birth attendants, and schoolteachers. Most nonformal providers will be community based.

Following this exercise, a list of key outcome indicators that can be used during evaluation of schemes was developed. The group tried to include indicators for factors that could be potentially problematic or could confound results. In addition, potential sources of the data were discussed—

- Case detection rate
- Treatment adherence
- Decreased default rates
- Community development factors—such as women's status and knowledge, community responsibility, and TB awareness—which must be obtained from other sectors
- Public health indicators (mortality)—how relevant?

- Sustainability of behavior change in community—how to measure?
- Poverty reduction/equity/reaching the poor—how to capture in routine monitoring?
- Treatment delay—how to measure?

The group then considered some process indicators. Again, it was determined that such indicators will depend on the context of the scheme: the type of nonformal provider targeted and the objective of the incentive or enabler scheme. The group recommended ongoing monitoring and supervision, which should include supportive supervision of community-based providers, such as information on their performance. A list of process indicators for community-based providers was proposed—

- Performance of nonformal providers, such as referrals and defaults
- Proportion of home versus clinic visits
- Existing health systems initiatives and structures
- Benefits to individual providers
- Type of incentives (specific to context)

The group then highlighted the contextual issues necessary to measure as background or control variables, especially to address the challenge of isolating the impact of the incentive or enabler. Because the nonformal providers are likely to be community based and are also likely end points for many types of service delivery, the context in which they function must be measured or documented. Some key issues identified to focus on were the following—

- Competing project demands versus limited time and energy of volunteers (especially from community-based efforts)
- Linkages with other projects and initiatives by the volunteers
- Functioning of the health facility, local health system, and community networks
- Other community-based projects in the areas, perhaps outside the health sector

Conclusions from Day 2 Working Groups

Although the review of recent experiences demonstrated a wide variety of I&E schemes in use, participants found the grouping by theme to be useful. The working groups independently identified several common indicators to use for monitoring and evaluating I&E scheme impact on the following—

- Treatment adherence
- Case detection rates
- Defaulter rates
- Case finding
- Treatment delay
- Number of referrals

Most of these indicators are already part of DOTS monitoring requirements. In addition, the working groups identified important background indicators that should be monitored either quantitatively or qualitatively, such as management and administration resources, beneficiary satisfaction and attitudes to DOTS, sustainability of the I&E scheme, and impact of the I&E scheme on the poor. The increasing focus on TB and poverty may support inclusion of standard indicators on reaching the poor in DOTS monitoring. PPM efforts may be particularly interested in developing tools to assist in monitoring changes in attitudes to DOTS and provider satisfaction with collaborating with the NTP for TB control.

WORKSHOP CONCLUSIONS

The workshop concluded with some summary comments from participants and the organizers, presented according to several key themes.

1. The Role of I&Es in TB control Is Being Mainstreamed

A stand-alone working group on TB I&Es is not necessary, but clearly, stakeholder motivations need to be addressed explicitly in other established DOTS Expansion Working Groups (eg., PPM, CB DOTS, DOTS-Plus schemes). These working groups should play a key role in the piloting and evaluation of I&Es as part of testing new strategies and interventions.

In particular, a major opportunity and a substantial challenge exist for linking TB and HIV prevention and control efforts. These efforts need to be complemented by increased financing and political commitment to improve the health-systems enabling environment, and should include specific approaches, including I&E, to involve patients and their support systems.

2. Recent Experiences with I&Es Reveal Several Key Challenges

Although I&Es vary in type and scope, common themes and challenges were identified during the workshop: design and implementation of I&E schemes; evaluation design; and analysis and attribution of evaluation findings.

Common design and implementation challenges included clear identification of scheme objectives and beneficiaries, accommodating the management and administration demands of the I&E scheme, and controlling for unintended perverse effects.

Participants agreed that the key evaluation challenge is attributing observed effects specifically to an I&E scheme within an epidemiological, DOTS-implementation, and health-systems environment that is highly dynamic. Although including a comparison or control group in evaluation design is the key to addressing this challenge, participants also expressed ethical concerns about using a control group in certain situations.

An OR&E guide is needed to assist partners with these specific challenges to evaluating I&E schemes. Participants endorsed the concept and plans of RPM Plus to develop a framework and model protocols for such a guide. These guidelines should help improve efforts to measure effectiveness, as well as to document management challenges and responses to control perverse effects.

Scale-up of I&E schemes will depend on stakeholder commitment, including for financing for the medium term, as well as on better data on cost-effectiveness of I&E schemes for decision making. To date, the scope, depth, and quality of evaluation of the effectiveness and efficiency

of I&E schemes is wholly inadequate. Additional OR&E studies and the sharing and publication of results are needed before major scale-up of I&E approaches can be promoted.

3. Stakeholder Motivations Mapping Assists in Planning for I&Es

Experiences in China, Tanzania, and Uganda show that DOTS motivation mapping workshops are useful for defining the added value of potential enablers, incentives, or other DOTS improvements in improving TB program performance. The methodology used during these workshops can help build consensus on common problems and identify potential solutions, increasing the motivation and performance of key stakeholders in DOTS, whether providers, patients, or other partners. Identified solutions have involved either improved functioning of core DOTS practice or innovations such as specific enablers or incentives that require testing. The mapping workshop format, using guided, interactive informal discussion, can engage different stakeholders in uncovering unexpected solutions and building commitment to problem solving.

4. Common Indicators Can Be Used for Evaluating I&Es

Although many I&E schemes are in use, they can be grouped according to four broad themes: food support to patients, nonfood support to patients, incentives for formal providers, and incentives for informal providers. Working groups focusing on each of these themes identified common indicators for M&E: treatment adherence, case detection rates, defaulter rates, case finding, treatment delay, and number of referrals. Most of these indicators are already part of DOTS monitoring requirements. In addition, the working groups identified important background indicators that should be monitored either quantitatively or qualitatively, such as management and administration resources; beneficiary satisfaction and attitudes toward DOTS, sustainability of the I&E scheme, and impact of the I&E scheme on the poor.

5. Further Documentation of I&E Experiences and Impact Is Needed

Partners in TB control could benefit from further documentation on ongoing I&E schemes, even those that continue in the absence of formal piloting or evaluation. Experiences from schemes that target improved performance of NTP managers and supervisors, local administrative bodies such as municipalities, and provider institutions not traditionally participating in DOTS could provide valuable lessons, as could schemes that target poor patients and their support network.

NEXT STEPS

- Participants called on the Stop TB Partnership and RPM Plus to continue facilitating documentation of I&E experiences, cross-fertilization, and financing of I&E in TB control. RPM Plus has launched a new Web site[5] with updated materials available. The workshop organizers committed to stimulating electronically based discussion on new published or "gray" literature in this area.

- RPM Plus will continue the development of the OR&E guide and make it widely available to partners in TB control. Participants identified specific issues to be addressed by this guiding framework: choosing a feasible study design, identifying appropriate comparison groups, using alternative means to account for confounding factors, using both quantitative and qualitative approaches, and collecting data and performing cost and cost-effectiveness analyses. Although the OR&E guide will not eliminate the challenge of measuring the incremental impact of an I&E scheme, it can improve efforts to measure effectiveness and costs, as well as encourage programs to document implementation challenges and responses to perverse effects.

- A symposium on I&E will be held within the IUATLD annual congress in October 2004, titled, "Incentives for DOTS Performance: Enabling or Corrupting?" This event will provide a prime opportunity for partners to share recent experiences and results from evaluations and draw in more partners. Participants also hope that further opportunities will be available in future regional and global Stop TB meetings to promote I&E successes.

- The FIDELIS secretariat and its donor, CIDA, encouraged workshop participants to submit proposals for piloting and scale-up of new I&E schemes, as a potentially effective DOTS innovation that is well-suited for financing by the program.[6] Many programs have already received financing from donors to scale up DOTS, including support for innovative approaches; applicants should ensure that proposals include support for proper evaluation of the innovative approaches.

The meeting concluded with a general commitment of participants to share information as well as advocate for more research in this field and for appropriate financing to facilitate communications and effective implementation. The RPM Plus/Stop TB team committed to continue to work actively with interested workshop participants and possible funders (USAID and others) to determine where OR&E might be conducted to expand the evidence base. RPM Plus will finalize the OR&E guide with peer review assistance and make the final product widely available. Participants hope that this tool will further stimulate OR&E of TB I&Es impact on TB control. RPM Plus will explore providing small-scale support to OR&E studies in selected regions. RPM Plus will also encourage those conducting OR&E studies to share their findings through linking with or direct posting to the RPM Plus Web site,[5] and through publication. Annex 5 is a summary of workshop evaluations.

[5] Visit http://www.msh.org/projects/rpmplus/tb/3.5.5.htm.
[6] Visit www.iuatld.org for more information on FIDELIS.

ANNEX 1. WORKSHOP AGENDA

AGENDA
Workshop on "Evaluating TB Enablers and Incentives"

Sponsored by the Stop TB Partnership and the Rational Pharmaceutical Management Plus Program/MSH

Palais des Congres, Paris, France
November 3 & 4, 2003

3 November

8:30–9:00	Registration
9:00–9:20	Introduction and overview of workshop objectives D. Weil – World Bank/WHO and S. Mookherji –MSH
9:20–10:00	Overview of process/findings/next steps from "motivations mapping" workshops: Experiences in China, Uganda, and Tanzania – Moderator/introduction: D. Weil – Presenters: 1. D. Weil on behalf of F Adatu – NTLP, Uganda, and Dr. Egwaga, Tanzania 2. J. Liu and F. Zhao – NTP, China 3. S. Egwaga – NTLP, Tanzania Discussion Brief overview of FIDELIS – D. Enarson, IUATLD
10:00–10:20	Coffee break
10:20–11:30	Panel I: Findings from recent incentive and enabler studies – Moderator: S. Egwaga – Presenters: 1. El Salvador (A. Miranda, – CDC) 2. Haiti (E. Nicolas – ICC-CAT) 3. Ivanovo, Oblast, Russia (O. Medvedeva – TB program Ivanovo Oblast/P. Cedielski –CDC) 4. Peru and other experiences (D. Barry **–** PIH) 5. Cambodia (S. Mookherji – MSH/M. Eang – NTP) – Discussion
11:30–12:30	Panel II: Ongoing or proposed research – Moderator: P. Cegielski – Presenters: 1. Kazakhstan (P. Robinson – American Red Cross) 2. Tajikistan (T. Mohr – Project HOPE) 3. Bangladesh (H. Salim – Damien Foundation) 4. Czech Republic (L. Trnka – NTP, Czech Republic) – Discussion

12:30–13:30	Lunch provided
13:30–14:30	Introduction to methods for assessing incentive/enabler interventions, and sample protocol frameworks – S. Mookherji Discussants: G. Mann – Liverpool School of Tropical Medicine (qualitative and quantitative methods) P. Cegielski (quasi-experimental designs) D. Weil, on behalf of C. Hanson (survey methods) - Discussion
14:30–15:15	Working groups to identify key issues for plenary discussion under each theme (participants to self-select to working groups) Group 1: Evaluating ongoing enabler/incentive schemes Group 2: Designing and evaluating new enabler/incentive interventions Group 3: Interpreting findings and attributing results Group 4: Addressing challenges to scale-up and replication
15:15–15:35	Coffee Break
15:35–17:30	Presentations by rapporteurs and general discussion – Moderator: S. Mookherji

4 November

8:30–8:50	Summary of key points from Day 1's research theme discussions (by facilitators) and introduction to morning session
8:50–9:15	Facilitating common research: K. Lönnroth (WHO) on the public-private mix (PPM) subgroup of the DOTS Expansion Working Group – Discussion
9:15–11:00	Break-out sessions focusing on selected thematic issues (To be confirmed on day 1 of the workshop): Group 1: Food support for patients Group 2: Other incentives/enablers for patients (Focus on Eastern Europe and Former Soviet Union Group 3: Incentives/enablers for formal TB service providers Group 4: Incentives/enablers for informal TB service providers Potential focus of group discussions: knowledge sharing on specific measurement and analytic concerns, strengthened collaboration and resource mobilization (includes coffee break)
11:00–11:30	Feedback reports from session rapporteurs – Moderator (D. Weil)
11:30–12:00	Final discussion and conclusions

ANNEX 2. WORKSHOP PROFILE

Design and Evaluation of Enablers and Incentives to Improve TB Control

Day-and-a-half satellite workshop following IUATLD Congress: November 3–4, 2003

Description: An interactive workshop to explore the design, monitoring, and evaluation of enabler and incentive schemes that seek to improve TB control programs by increasing the motivation and performance of patients, providers, and others engaged in DOTS programs. This is a follow-on workshop to one held at the IUATLD Annual Congress in 2001 and is again co-sponsored by the Stop TB Partnership and the Management Sciences for Health Rational Pharmaceutical Plus Project. It will engage partners who have results to share on recently designed, implemented, or evaluated schemes or those seeking to assess whether to pursue such approaches. Emphasis will be placed on discussion and debate on measurement of effectiveness, impact, control of perverse effects, generalizability, and feasibility of replication and/or scale-up of approaches. Presentations, panel discussion, posters, and working groups will be organized.

Target Audience: National TB Program managers, TB project managers, partners, and researchers (approximately 50 persons)

Objectives:

(a) To enable participants to share information on recently designed, implemented, or evaluated schemes that provide incentives or enablers to patients and/or providers engaged in DOTS interventions.

(b) To review frameworks and methods for local workshops to "map" the incentive environment at health system, service and community level, other needs assessment approaches, and impact evaluation methods.

(c) To discuss special efforts to reduce adverse effects of incentives, to enable financing and scale-up, and to reach the poor.

Modalities: Brief introductory presentations will be followed by poster review, panel sessions, interactive working groups, and consensus discussion on lessons learned.

Output: A workshop report will include summaries of presentations, posters, working group products, and lessons learned. It will be made available on websites, in print, and through ongoing interaction among researchers via email and other means.

Coordinators: Diana Weil, Sangeeta Mookherji, and Alix Beith

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ANNEX 4. NOTES FROM DAY 2 WORKING GROUPS

Table A4-1. Food Support Working Group

Country Context	High-Income Setting (Czech Rep., USA)	Middle-Income Setting (Brazil/Rio, Eastern Europe, El Salvador)	Low-Income Countries—High-Poverty Setting (Cambodia, Haiti, Africa)
Objectives of food support	• Incentive for adherence/clinic attendance • Improve cure rates	• Incentive for adherence/clinic attendance • Improve cure rates • Russia: nutritional support in hospitals and prisons	• Enabler • Nutritional support • Incentive for treatment completion • Benefit to family • Haiti: food to providers incentive for better quality of care
Implementation challenges	• Target groups tend to be smaller; those most in need and most difficult to reach	***Administration—who does it?*** <u>El Salvador</u> • Vouchers via the Pan American Health Organization were a challenge • No structured protocol led to failure • No training for providers • No monitoring and evaluation plan at outset <u>Russia</u> • Patients are hospitalized, which makes distribution easier • Message error to providers • Lack of education of providers; required retraining • Facilitated patient-provider interaction <u>Brazil</u> • Lack of staff for patient incentives • High demand • Overlap of DOTS patients <u>Georgia</u> • Expect cultural challenge—stigma • How to organize to reduce this risk • How to address people most at risk from stigma	• Corruption—providers are often underpaid, need measures to prevent High volumes of TB patients—substantial distribution and logistics issues <u>Haiti</u> • Discontinuity of stocks and losses because of poor logistics • Labor intensive • Warehouse facilities needed • Burden on clinics <u>Cambodia</u> • Ghost patients • Product problems in beginning (food varieties not to local tastes) • Information systems, especially for stock • Logistics and distribution <u>South Africa</u> • Food delivered to common supporters • Use additional enablers, such as income generation

Country Context	High-Income Setting (Czech Rep., USA)	Middle-Income Setting (Brazil/Rio, Eastern Europe, El Salvador)	Low-Income Countries—High-Poverty Setting (Cambodia, Haiti, Africa)
Evaluation challenges	• Small patient numbers, but may be hard to track • Counselors are available to monitor and collect data	• Most lacked an M&E plan at outset—made it difficult	• Most lacked an M&E plan at outset • Difficult to determine the credibility of the observed impact—either no comparison areas, or too many intervening factors to separate the impact of the incentive

Table A4-2. Summary—Partners Involved in Food Support Programs

Country	Who Defines the Beneficiaries?	Who Finances the Food?	Who Handles Logistics?	Who Does M&E?
El Salvador	NTP	USAID/Pan American Health Organization	Regional health services (local food is procured)	NA
Haiti	NTP/ICC (NGO)	CIDA (pilot project), plus monetization of food for TB activities	WFP (for imported food—target group for them) TB clinics (local food)	ICC
Brazil/Rio	Rio NTP (selected because of low average income level)	Municipality of Rio—Social Devt Sec and School Food Adjunct	Social Development Secretary and School Food Adjunct	NA
Cambodia	NTP	WFP (small add on to their larger country program)	WFP District health teams TB clinics	WFP/NTP
Georgia Russia— select oblasts	Oblasts (ambulatory intensive patients, prisoners, MDR patients)	WFP Salvation Army USAID Missions	Red Cross? WFP Salvation Army NTP/WHO Oblasts	MSCI WHO/NTP CDC
South Africa	NTP (all patients in pilot area)	USAID	Operation Hunger	Operation Hunger

NA = not available.

Coordination Needs

- Access to financing and food logistics
- Technical assistance (people)
- Knowledge and information sharing
- Tools for monitoring and evaluation—setting specific
- Advocacy and best practices—consensus on model prerequisites

Table A4-3. Notes from Nonfood Patient Incentives Working Group (Day 2): Summary of Participant Experiences

Country	Objectives of Scheme	Beneficiaries and Target Group	Types of Incentives Used	Partners Involved
Romania	Increased adherence	Homeless, drug addicts	Food?	American Red Cross Doctors of the World GFATM?
Russia Ivanovo	Improved treatment outcomes Increased adherence	TB patients—new and retreatment cases Released prisoners	Food baskets, hygiene kits, clothing These are seen as enablers, as part of the social welfare system	WHO Red Cross MOH
Russia St. Petersburg	Improve follow-up of released prisoners with TB Evaluation objectives: Assess feasibility Demonstrate effectiveness—impact	Soon-to-be-released prisoners (approximately 100 per year) ➔ Can a link be formed between prisons and civilian TB systems? ➔ Can defaulters be found?	National ID card, counseling, legal assistance, TB education, food, transport, small amounts of money Identified through a needs assessment Indicators used: Successful referrals from prisons Number of defaulters found	?
Bangladesh	Increase and sustain case detection and cure rates Evaluation objectives: Assess feasibility Determine replication needs	Cured TB patients All new TB patients	TB Clubs—community motivation	DF NTP MOH

Common Intervention Objectives

- Increasing cure rates
- Improving adherence—treatment and visits (what is the difference?)

Common Evaluation Objectives

- Needs assessment to identify incentives
- Feasibility of intervention—are comparison groups possible?
- Demonstrate effectiveness and impact of incentive

Common Evaluation Indicators

- Compliance/treatment adherence
- Cure rates
- Default rates
- Intermediate—case finding, number of referrals

Coordination Mechanisms

Russia

- MOH—responsible for TB control—should have agreement that outlines roles and responsibilities in TB control
- High-level working group—which includes MOH, Justice, Labor, Academia, WHO WR, Medical Sciences
- Thematic group on I&E in TB—developed technical protocols throughout Russia (MOH and WHO); proposed assessment criteria; discussed experiences; will produce guidelines and recommendations on I&E in TB (for Russia?)

Romania

- MOH, National Pulmonary Institute, TB Commission, PST—research organization
- Three funding sources for I&E coordinated by MOH

Bangladesh

- MOH, NGOs, Health Economics Unit (research), International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)

ANNEX 5. SUMMARY OF WORKSHOP EVALUATIONS

Key Evaluation Findings

- Participants felt strongly that the workshop was worth their time, that evaluation of I&Es is relevant to their work, that there should be continued exchange of experiences in this area, and that an OR&E I&E guide is useful.
- All sessions were received positively revealing that chosen topics were appropriate and timely.
- Although clearly participants liked the workshop's emphasis on working groups, several individuals expressed the desire for more time dedicated to working group sessions and general discussion (the assumption being less time for formal presentations).
- There was considerable interest in further collaboration and more frequent discussion on evaluation efforts to determine the incremental impact of incentives and enablers on TB control.

Response Rate

- Of 55 participants (including facilitators), 25 completed workshop evaluation forms.
- All participants who did not previously submit an evaluation form were encouraged to fill out the form on the workshop CD (compiled by RPM Plus), which will be sent to all participants.

General Comments

- "Working groups need more structured agenda, outputs, etc."
- "Excellent facilitators—this could be a conference on its own. We all have so much to share."
- "More time for workshop discussions might be necessary."
- "Overall excellent. Needed more time for focused working groups faced with similar challenges. A pre-workshop 'needs assessment' can help identify workshop participant priorities that they would like to discuss during the workshop."
- "Web sites/addresses of possible donors for projects/research needed."

- "Having attended the full conference, very tired—not sure whether the workshop would be better before the conference? Need to use what has come out of the workshop for advocacy to government, so please can we have the CD ASAP?"

- "It would be beneficial to organize such workshops at least once in a year."

- "The workshop should be organized each year to share the experiences and find out different enabling factors and incentive schemes."

- "A great opportunity for discussion after the individual country presentations on day 1 could have provided a better opportunity to learn from each other's experiences. Perhaps the room could have also been set up in less 'classroom' fashion."

- "This type of work should be continued beyond workshops and in the future."

- "Emphasis on working groups good but not enough time. Let's talk about structural barriers too. Should spend more time on methodology. I think that's the weak point/link."